

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

# PCT

To:

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ETATS-UNIS D'AMERIQUE

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT AND  
THE WRITTEN OPINION OF THE INTERNATIONAL  
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing  
(day/month/year)

11/02/2009

Applicant's or agent's file reference

54330/368822

**FOR FURTHER ACTION**

See paragraphs 1 and 4 below

International application No.

PCT/US2008/081689

International filing date  
(day/month/year)

30/10/2008

Applicant

TURBOCHEF TECHNOLOGIES, INC.

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

**Where?** Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

**4. Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk  
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Authorized officer

Cristina Novelli

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 54330/368822	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2008/081689	International filing date (day/month/year) 30/10/2008	(Earliest) Priority Date (day/month/year) 30/10/2007
Applicant TURBOCHEF TECHNOLOGIES, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

- b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6b(a)).  
 c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant  
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☐ the text is approved as submitted by the applicant  
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 2  
☐ as suggested by the applicant  
☒ as selected by this Authority, because the applicant failed to suggest a figure  
☐ as selected by this Authority, because this figure better characterizes the invention  
 b. ☐ none of the figures is to be published with the abstract

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2008/081689

## Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

An antenna cover assembly (11) for a high-temperature operating environment has a cover plate (23), gasket portions (25,39,41), and a retainer plate. The cover plate has an inner side and an outer side, the cover plate being translucent to at least one selected frequency of electromagnetic energy. The gasket portions are each located adjacent one of the inner and outer sides, each gasket portion being configured for sealingly engaging the adjacent side. The retainer plate is configured for attachment to a structure located in a high-temperature operating environment. The retainer plate has a sealing flange (33) adapted for clamping the cover plate generally adjacent an antenna portion (21) of a waveguide.

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/081689

A. CLASSIFICATION OF SUBJECT MATTER  
INV. H01Q1/42 H05B6/72  
ADD. F24C7/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
H01Q H05B F24C A21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX, IBM-TDB

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 31 19 596 A1 (LICENTIA GMBH [DE]) 2 December 1982 (1982-12-02) page 4, line 11 - line 25 figure 1 abstract	1-10
Y	US 4 316 069 A (FITZMAYER LOUIS H) 16 February 1982 (1982-02-16) column 3, line 26 - column 5, line 20 figures 1-5 abstract	1-10
Y	JP 62 218736 A (MATSUSHITA ELECTRIC IND CO LTD) 26 September 1987 (1987-09-26) figures 1-11 abstract	1-10

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "Z" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

4 February 2009

11/02/2009

Name and mailing address of the ISA/  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
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Authorized officer

von Walter, Sven-Uwe

## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/081689

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 88 01 849 U1 (BOSCH-SIEMENS HAUSGERAETE GMBH, 8000 MUENCHEN, DE) 31 March 1988 (1988-03-31) page 2, line 13 - page 3, line 10 figures 1-3 abstract -----	1-10
A	DE 37 34 958 A1 (BOSCH SIEMENS HAUSGERAETE [DE]) 27 April 1989 (1989-04-27) column 3, line 41 - column 4, line 2 figures 4A-4C abstract -----	1-10
A	US 2007/194011 A1 (MCFADDEN DAVID H [US]) 23 August 2007 (2007-08-23) page 3, paragraph 35 - page 6, paragraph 57 figures 1-11 abstract -----	1-10
A	WO 2005/087009 A (GLOBAL APPLIANCE TECHNOLOGIES [US]; MCFADDEN DAVID H [US]) 22 September 2005 (2005-09-22) cited in the application page 32, line 10 - page 33, line 16 figures 8,9 abstract -----	1-10

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No

PCT/US2008/081689

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 3119596	A1	02-12-1982	NONE
US 4316069	A	16-02-1982	CA 1159905 A1 03-01-1984
JP 62218736	A	26-09-1987	NONE
DE 8801849	U1	31-03-1988	NONE
DE 3734958	A1	27-04-1989	NONE
US 2007194011	A1	23-08-2007	NONE
WO 2005087009	A	22-09-2005	NONE

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2008/081689

International filing date (day/month/year)  
30.10.2008

Priority date (day/month/year)  
30.10.2007

International Patent Classification (IPC) or both national classification and IPC  
INV. H01Q1/42 H05B6/72  
ADD. F24C7/02

Applicant  
TURBOCHEF TECHNOLOGIES, INC.

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Date of completion of  
this opinion

see form  
PCT/ISA/210

Authorized Officer

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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2008/081689

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of:
  - ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in electronic form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:



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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	<u>1-10</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-10</u>
Industrial applicability (IA)	Yes: Claims	<u>1-10</u>
	No: Claims	

2. Citations and explanations

see separate sheet

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

see separate sheet

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**1. Section V:**

Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure:

D1: DE 31 19 596 A1

D2: JP 62 218736 A

2. The subject-matter of claim 1 does not involve an inventive step (Article 33 (3) PCT).

D1, which is considered to represent the most relevant state of the art, discloses an antenna cover assembly for a high-temperature operating environment (cf. D1, abstract) comprising

a cover plate having an inner side and an outer side, the cover plate being translucent to at least one selected frequency of electromagnetic energy (D1, page 4, lines 19-22; D1, Fig. 1, ceramic disc 10);

an elastomeric gasket portion, the portion being located adjacent to the outer side, the gasket portion being configured for sealingly engaging the adjacent side (D1, page 4, lines 22-25; D1, Fig. 1, high-temperature compatible gasket 12); and  
a retainer plate adapted for attachment to a structure located in a high-temperature operating environment, the retainer plate having a sealing flange adapted for clamping the cover plate generally adjacent an antenna portion of a waveguide (D1, page 4, lines 22-25; D1, Fig. 1, frame 11).

Consequently, the present formulation of the subject-matter of claim 1 differs from the antenna cover disclosed in D1 only in that said elastomeric gasket portion is also located adjacent to said inner side.

However, to solve the problem of sealing the feedbox from the cooking cavity of a microwave oven, it is known in the art to further enhance a gasket portion sealing a cover plate by using a U-shaped form, thus engaging the inner side (see e.g. D2, abstract and D2, Figs. 1-10, gasket 2). Including such a gasket into what is known from D1, the skilled person would arrive at the subject-matter of claim 1 without inventive efforts.

3. The subject-matter of claims 2-5 does not go beyond such an obvious combination of D1 and D2 and consequently lacks inventive step, Article 33 (3) PCT.

4. These objections apply equally to claims 6-10 (cf. D1, page 4, lines 11-18; D1, Fig. 1, waveguide 6, feedbox 7).

5. **Section VII:**

a. To meet the requirements of Rule 6.3(b) PCT, the independent claim should be properly cast in the two part form, with those features which are part of the prior art (see D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and the subject-matter, for which protection is sought, being placed in the characterising portion (Rule 6.3(b)(ii) PCT).

The remaining claims should be adapted to this new claim.

b. It appears appropriate to incorporate reference numerals in the claims to features in the drawings. The technical features of the claims would be rendered more intelligible by relating these features to the corresponding features of the drawings (Rule 6.2(b) PCT). This applies to both the preamble and characterising portion.

c. The opening pages of the description should be brought into line with the new independent claim (Rule 5.1(a) (iii) PCT). In particular, it will be necessary to replace the statement of the invention commencing on page 3 by a statement strictly in conformity with the new main claim.

d. In order to indicate more completely the background art useful for understanding the invention, the abovementioned documents D1 and D2 should be acknowledged in the description (Rule 5.1(a)(ii) PCT).

e. The expression "the contents of all the abovementioned applications in their entireties are incorporated herein by reference" used at page 1, lines 29-30 should be deleted from the description if knowing what is in the document is in fact **not** essential for carrying out the invention as meant by Article 5 PCT (cf. the PCT

Guidelines PCT/GL/ISPE/1 4.26).

- f. As a precaution, care should be taken to avoid giving rise to objection under Articles 34(2)(b) and 41(2) PCT by the inadvertent addition or deletion of subject-matter which extends the content of the application beyond that of the application as filed.
  - g. In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the Applicants are requested to clearly identify the amendments carried out, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT).
6. **Section VIII:**
- a. The obviously unnecessary statement in the description at page 6, lines 18-22, should be deleted (Rule 9.1 (iv) PCT).
  - b. It appears appropriate to set out the invention in a single independent apparatus claim (cf. the PCT Guidelines PCT/GL/ISPE/1 5.14).

Possible steps after receipt of the international search report (ISR) and written opinion of the International Searching Authority (WO-ISA)

General information	For all international applications filed on or after 01/01/2004 the competent ISA will establish an ISR. It is accompanied by the WO-ISA. Unlike the former written opinion of the IPEA (Rule 66.2 PCT), the WO-ISA is not meant to be responded to, but to be taken into consideration for further procedural steps. This document explains about the possibilities.
Amending claims under Art. 19 PCT	Within 2 months after the date of mailing of the ISR and the WO-ISA the applicant may file amended claims under Art. 19 PCT directly with the International Bureau of WIPO. The PCT reform of 2004 did not change this procedure. For further information please see Rule 46 PCT as well as form PCT/ISA/220 and the corresponding Notes to form PCT/ISA/220.
Filing a demand for international preliminary examination	<p>In principle, the WO-ISA will be considered as the written opinion of the IPEA. This should, in many cases, make it unnecessary to file a demand for international preliminary examination. If the applicant nevertheless wishes to file a demand this must be done before expiry of 3 months after the date of mailing of the ISR/ WO-ISA or 22 months after priority date, whichever expires later (Rule 54bis PCT). Amendments under Art. 34 PCT can be filed with the IPEA as before, normally at the same time as filing the demand (Rule 66.1 (b) PCT).</p> <p>If a demand for international preliminary examination is filed and no comments/amendments have been received the WO-ISA will be transformed by the IPEA into an IPPP (International Preliminary Report on Patentability) which would merely reflect the content of the WO-ISA. The demand can still be withdrawn (Art. 37 PCT).</p>
Filing informal comments	After receipt of the ISR/WO-ISA the applicant may file informal comments on the WO-ISA directly with the International Bureau of WIPO. These will be communicated to the designated Offices together with the IPPP (International Preliminary Report on Patentability) at 30 months from the priority date. Please also refer to the next box.
End of the international phase	At the end of the international phase the International Bureau of WIPO will transform the WO-ISA or, if a demand was filed, the written opinion of the IPEA into the IPPP, which will then be transmitted together with possible informal comments to the designated Offices. The IPPP replaces the former IPER (international preliminary examination report).
Relevant PCT Rules and more information	Rule 43 PCT, Rule 43bis PCT, Rule 44 PCT, Rule 44bis PCT, PCT Newsletter 12/2003, OJ 11/2003, OJ 12/2003